

AMENDMENTS TO THE CLAIMS:

Kindly cancel claim 17 without prejudice, amend claim 9 as shown below, and add new claims 19-21.

This listing of claims will replace all prior versions and listings of claims in the Application:

9. (Currently amended) In A a method of automatically hybridizing a polynucleotide probe composition to a at least one target on a solid substrate, said method executed in an automated staining system having evaporation inhibitor liquid covering a polynucleotide hybridization buffer-covered target on said slide, the improvement comprising the steps of

~~preparing a section of tissue or cells to be examined;~~

~~automatically hybridizing the tissue section or cellular preparation said target with a said polynucleotide probe composition in the presence of low molecular weight dextran sulfate having a molecular weight range from about 8,000 to about 16,000 daltons, wherein said polynucleotide probe composition contains at least one sequence complementary to a coding region of the said target;~~

~~removing unhybridized polynucleotide probe from said tissue section or cellular preparation; and~~

~~detecting the hybridized polynucleotide probe target combination.~~

10. (original) The method of claim 9 wherein said polynucleotide probe composition is selected from the group consisting of DNA probes and RNA probes.

11. (original) The method of claim 9 wherein said tissue section is a paraffin-embedded tissue section.

12. (original) The method of claim 9 wherein said tissue section is a fresh-frozen tissue section.

13. (original) The method of claim 9 wherein said polynucleotide probe composition is labeled with a detectable label.

14. (original) The method of claim 9 wherein said label is selected from the group consisting essentially of fluorophores, haptens and chromogens.

15. (Canceled) ~~The method of claim 9 wherein the step of preparing a section of tissue or cells to be examined comprises a liquid-based preparation step.~~

16. (Canceled) ~~The method of claim 9 wherein the step of preparing a section of tissue or cells to be examined comprises contacting the target RNA or DNA with blocking DNA to suppress background cross-reactive signal.~~

17. (Canceled) ~~The method of claim 9 wherein said hybridization, removal and detection steps are performed by an automated tissue staining instrument.~~

18. (Currently amended) The method of claim 9 wherein said probe composition is arrayed on a said solid substrate.

19. (New) The method of claim 9 wherein said dextran sulfate has an average molecular weight of about 13,000.

20. (New) The method of claim 9 wherein said low molecular weight dextran sulfate concentration ranges from about 5% to about 25%, wt./vol.

21. (New) The method of claim 9 wherein said polynucleotide hybridization buffer optionally contains formamide having a concentration of from about 5% to about 80%, wt./vol.